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United States Department of Agriculture,  
BUREAU OF CHEMISTRY.

TABLE FOR THE REDUCTION OF CUPROUS OXID TO COPPER, USING  
THE FACTOR 0.88826, AND OF REDUCED COPPER CALCULATED TO  
INVERT SUGAR ACCORDING TO E. WEIN.

[Weights in milligrams.]

Cu- prous oxid.	Cop- per.	Invert sugar.	Cu- prous oxid.	Cop- per.	Invert sugar.	Cu- prous oxid.	Cop- per.	Invert sugar.	Cu- prous oxid.	Cop- per.	Invert sugar.
1	0.9	0.5	64	56.8	29.3	127	112.8	59.1	190	168.8	89.2
2	1.8	0.9	65	57.7	29.7	128	113.7	59.6	191	169.7	89.7
3	2.7	1.4	66	58.6	30.2	129	114.6	60.1	192	170.5	90.3
4	3.6	1.8	67	59.5	30.6	130	115.5	60.4	193	171.4	90.3
5	4.4	2.3	68	60.4	31.1	131	116.4	60.8	194	172.3	90.8
6	5.3	2.7	69	61.3	31.6	132	117.3	61.2	195	173.2	91.4
7	6.2	3.2	70	62.2	32.0	133	118.1	61.7	196	174.1	91.9
8	7.1	3.7	71	63.1	32.5	134	119.0	62.3	197	175.0	92.4
9	8.0	4.1	72	64.0	32.9	135	119.9	62.8	198	175.9	93.0
10	8.9	4.6	73	64.8	33.4	136	120.8	63.3	199	176.8	93.5
11	9.7	5.0	74	65.7	33.8	137	121.7	63.9	200	177.7	94.1
12	10.6	5.5	75	66.6	34.3	138	122.6	64.4	201	178.5	94.6
13	11.5	5.9	76	67.5	34.8	139	123.5	64.8	202	179.4	94.6
14	12.4	6.4	77	68.4	35.2	140	124.4	65.2	203	180.3	95.2
15	13.3	6.9	78	69.3	35.7	141	125.2	65.5	204	181.2	95.7
16	14.2	7.3	79	70.2	36.1	142	126.1	66.0	205	182.1	96.2
17	15.1	7.8	80	71.1	36.6	143	127.0	66.5	206	183.0	96.8
18	16.0	8.2	81	71.9	37.0	144	127.9	67.1	207	183.9	97.3
19	16.9	8.7	82	72.8	37.5	145	128.8	67.6	208	184.8	97.8
20	17.8	9.1	83	73.7	38.0	146	129.7	68.1	209	185.6	98.4
21	18.7	9.6	84	74.6	38.4	147	130.6	68.7	210	186.5	99.0
22	19.5	10.1	85	75.5	38.9	148	131.5	69.0	211	187.4	99.0
23	20.4	10.5	86	76.4	39.3	149	132.4	69.3	212	188.3	99.5
24	21.3	11.0	87	77.3	39.8	150	133.2	69.7	213	189.2	100.1
25	22.2	11.4	88	78.2	40.2	151	134.1	70.3	214	190.1	100.6
26	23.1	11.9	89	79.1	40.7	152	135.0	70.8	215	191.0	101.2
27	24.0	12.3	90	79.9	41.2	153	135.9	71.3	216	191.9	101.7
28	24.9	12.8	91	80.8	41.6	154	136.8	71.9	217	192.8	102.3
29	25.8	13.3	92	81.7	42.1	155	137.7	72.4	218	193.6	102.9
30	26.6	13.7	93	82.6	42.5	156	138.6	72.9	219	194.5	103.4
31	27.5	14.2	94	83.5	43.0	157	139.5	73.5	220	195.4	103.4
32	28.4	14.6	95	84.4	43.4	158	140.3	73.5	221	196.3	104.0
33	29.3	15.1	96	85.3	43.9	159	141.2	74.0	222	197.2	104.6
34	30.2	15.5	97	86.2	44.4	160	142.1	74.5	223	198.1	105.1
35	31.1	16.0	98	87.0	44.8	161	143.0	75.1	224	199.0	105.7
36	32.0	16.5	99	87.9	45.3	162	143.9	75.6	225	199.9	106.3
37	32.9	16.9	100	88.8	45.7	163	144.8	76.1	226	200.7	106.8
38	33.8	17.4	101	89.7	<sup>a</sup> 46.9	164	145.7	76.7	227	201.6	107.4
39	34.6	17.8	102	90.6	47.4	165	146.6	77.2	228	202.5	107.9
40	35.5	18.3	103	91.5	47.9	166	147.5	77.8	229	203.4	107.9
41	36.4	18.7	104	92.4	47.9	167	148.3	77.8	230	204.3	108.5
42	37.3	19.2	105	93.3	48.4	168	149.2	78.3	231	205.2	109.1
43	38.2	19.7	106	94.2	48.9	169	150.1	78.9	232	206.1	109.6
44	39.1	20.1	107	95.0	49.5	170	151.0	79.4	233	207.0	110.2
45	40.0	20.6	108	95.9	50.0	171	151.9	80.0	234	207.9	110.8
46	40.9	21.0	109	96.8	50.5	172	152.8	80.5	235	208.7	111.3
47	41.7	21.5	110	97.7	51.1	173	153.7	81.0	236	209.6	111.9
48	42.6	21.9	111	98.6	51.6	174	154.6	81.6	237	210.5	112.5
49	43.5	22.4	112	99.5	52.1	175	155.5	82.1	238	211.4	112.5
50	44.4	22.9	113	100.3	52.1	176	156.3	82.1	239	212.3	113.0
51	45.3	23.3	114	101.2	52.7	177	157.2	82.7	240	213.2	113.6
52	46.2	23.8	115	102.1	53.2	178	158.1	83.2	241	214.1	114.2
53	47.1	24.2	116	103.0	53.7	179	159.0	83.8	242	215.0	114.7
54	48.0	24.7	117	103.9	54.3	180	159.9	84.3	243	215.8	115.3
55	48.9	25.2	118	104.8	54.8	181	160.8	84.8	244	216.7	115.8
56	49.7	25.6	119	105.7	55.3	182	161.7	85.4	245	217.6	116.4
57	50.6	26.1	120	106.6	55.9	183	162.6	85.9	246	218.5	117.0
58	51.5	26.5	121	107.5	56.4	184	163.4	85.9	247	219.4	117.0
59	52.4	27.0	122	108.4	56.4	185	164.3	86.5	248	220.3	117.5
60	53.3	27.4	123	109.3	56.9	186	165.2	87.0	249	221.2	118.1
61	54.2	27.9	124	110.1	57.5	187	166.1	87.6	250	222.1	118.7
62	55.1	28.4	125	111.0	58.0	188	167.0	88.1	251	223.0	119.2
63	56.0	28.8	126	111.9	58.5	189	167.9	88.6	252	223.8	119.8

<sup>a</sup> Up to this point the quantity of invert sugar is taken from a curve; beyond this point it is taken from Wein's table.



Table for the reduction of cuprous oxid to copper, etc.—Continued.

[Weights in milligrams.]

Cu- prous oxid.	Cop- per.	Invert sugar.	Cu- prous oxid.	Cop- per.	Invert sugar.	Cu- prous oxid.	Cop- per.	Invert sugar.	Cu- prous oxid.	Cop- per.	Invert sugar.
253	224.7	120.4	315	279.8	151.9	377	334.9	184.7	439	389.9	218.7
254	225.6	120.9	316	280.7	152.5	378	335.8	185.4	440	390.8	219.3
255	226.5	121.5	317	281.6	153.1	379	336.7	186.0	441	391.7	219.9
256	227.4	121.5	318	282.5	153.5	380	337.5	186.6	442	392.6	220.5
257	228.3	122.1	319	283.4	153.9	381	338.4	186.6	443	393.5	221.2
258	229.2	122.6	320	284.2	154.3	382	339.3	187.2	444	394.4	221.2
259	230.1	123.2	321	285.1	154.9	383	340.2	187.8	445	395.3	221.8
260	230.9	123.8	322	286.0	155.5	384	341.1	188.4	446	396.2	222.4
261	231.8	124.3	323	286.9	156.1	385	342.0	189.0	447	397.1	223.0
262	232.7	124.9	324	287.8	156.7	386	342.9	189.6	448	397.9	223.7
263	233.6	125.5	325	288.7	157.2	387	343.8	190.2	449	398.8	224.3
264	234.5	126.0	326	289.6	157.8	388	344.6	190.8	450	399.7	224.9
265	235.4	126.0	327	290.5	158.4	389	345.5	191.4	451	400.6	225.7
266	236.3	126.6	328	291.3	158.4	390	346.4	192.4	452	401.5	226.4
267	237.2	127.2	329	292.2	159.0	391	347.3	192.0	453	402.4	226.4
268	238.1	127.8	330	293.1	159.6	392	348.2	192.6	454	403.3	227.1
269	238.9	128.3	331	294.0	160.2	393	349.1	193.2	455	404.2	227.8
270	239.8	128.9	332	294.9	160.8	394	350.0	193.8	456	405.0	228.6
271	240.7	129.5	333	295.8	161.4	395	350.9	194.4	457	405.9	229.3
272	241.6	130.0	334	296.7	162.0	396	351.8	195.0	458	406.8	230.0
273	242.5	130.6	335	297.6	162.6	397	352.6	195.6	459	407.7	230.7
274	243.4	130.6	336	298.5	163.2	398	353.5	196.2	460	408.6	231.4
275	244.3	131.2	337	299.3	163.2	399	354.4	196.2	461	409.5	232.1
276	245.2	131.8	338	300.2	163.8	400	355.3	196.8	462	410.4	232.1
277	246.0	132.3	339	301.1	164.4	401	356.2	197.4	463	411.3	232.8
278	246.9	132.9	340	302.0	165.0	402	357.1	198.0	464	412.2	233.5
279	247.8	133.5	341	302.9	165.6	403	358.0	198.6	465	413.0	234.3
280	248.7	134.1	342	303.8	166.2	404	358.9	199.2	466	413.9	235.0
281	249.6	134.8	343	304.7	166.8	405	359.7	199.8	467	414.8	235.7
282	250.5	135.2	344	305.6	167.3	406	360.6	200.4	468	415.7	236.4
283	251.4	135.2	345	306.4	167.3	407	361.5	201.1	469	416.6	237.1
284	252.3	135.8	346	307.3	167.9	408	362.4	201.1	470	417.5	237.8
285	253.2	136.3	347	308.2	168.5	409	363.3	201.7	471	418.4	237.8
286	254.0	136.9	348	309.1	169.1	410	364.2	202.3	472	419.3	238.5
287	254.9	137.5	349	310.0	169.7	411	365.1	203.0	473	420.1	239.2
288	255.8	138.1	350	310.9	170.2	412	366.0	203.6	474	421.0	239.9
289	256.7	138.6	351	311.8	170.9	413	366.9	204.2	475	421.9	240.6
290	257.6	139.2	352	312.7	171.5	414	367.7	204.8	476	422.8	241.3
291	258.5	139.8	353	313.6	172.1	415	368.6	205.5	477	423.7	242.0
292	259.4	139.8	354	314.4	172.1	416	369.5	206.1	478	424.6	242.7
293	260.3	140.4	355	315.3	172.7	417	370.4	206.1	479	425.5	243.4
294	261.1	140.9	356	316.2	173.3	418	371.3	206.7	480	426.4	243.4
295	262.0	141.5	357	317.1	173.9	419	372.2	207.3	481	427.3	244.1
296	262.9	142.1	358	318.0	174.5	420	373.1	208.0	482	428.1	244.9
297	263.8	142.7	359	318.9	175.1	421	374.0	208.6	483	429.0	245.6
298	264.7	143.2	360	319.8	175.6	422	374.8	209.2	484	429.9	246.3
299	265.6	143.8	361	320.7	176.2	423	375.7	209.9	485	430.8	247.2
300	266.5	144.4	362	321.6	176.8	424	376.6	210.5	486	431.7	247.9
301	267.4	144.4	363	322.4	176.8	425	377.5	211.1	487	432.6	248.5
302	268.3	144.9	364	323.3	177.4	426	378.4	211.1	488	433.5	249.2
303	269.1	145.5	365	324.2	178.0	427	379.3	211.7	489	434.4	249.8
304	270.0	146.1	366	325.1	178.6	428	380.2	212.4	490	435.2	250.5
305	270.9	146.7	367	326.0	179.2	429	381.1	213.0	491	436.1	251.1
306	271.8	147.2	368	326.9	179.8	430	382.0	213.6	492	437.0	251.8
307	272.7	147.8	369	327.8	180.4	431	382.8	214.3	493	437.9	252.4
308	273.6	148.4	370	328.7	181.0	432	383.7	214.9	494	438.8	253.1
309	274.5	149.0	371	329.5	181.6	433	384.6	215.5	495	439.7	253.7
310	275.4	149.0	372	330.4	181.6	434	385.5	216.1	496	440.6	254.4
311	276.2	149.5	373	331.3	182.2	435	386.4	216.1	497	441.5	255.0
312	277.1	150.1	374	332.2	182.8	436	387.3	216.8	498	442.4	255.7
313	278.0	150.7	375	333.1	183.5	437	388.2	217.4	499	443.2	256.4
314	278.9	151.3	376	334.0	184.1	438	389.1	218.0	500	444.1	257.0